DETAILED ACTION

This is in response to applicant's communication filed on 02/07/2011, wherein:

Claim 1-3 and 5-9 are pending.

Claim 1 and 5-9 are amended.

Claim 4 is cancelled.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: ***(See MPEP Ch. 2141)***

a. Determining the scope and contents of the prior art;
b. Ascertaining the differences between the prior art and the claims in issue;
c. Resolving the level of ordinary skill in the pertinent art; and
d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

Claim 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Menon*** et al., Pat. No. US 9496,694 B1, in view of ***Wallentin***, Pat. No. US 6233222 B1.

Re **claim 1**, Menon discloses a signal transmission method comprising:

providing a wireless base station system, wherein the wireless base station system comprising: a first base station *(Fig. 8C - element 804b - IBS-G2)*, a second base station *(Fig. 8C - element 804a - IBS-G1)* and a wireless networks control device *(Fig. 8C - element 815 - MSC)*, wherein the first base station and the second base station are able to jointly share channel processing task of a cell of the first base station *(Fig. 8C discloses anchoring base station IBS-G1 804a processing data for mobile station relates to comprising relaying data from IBS-G2 base station, therefore, sharing channel processing task)*

in the downlink direction,

transmitting by the wireless network control device a part or all of downlink data frames to the base station to which their channel processing relates for processing *(Fig. 8C and col. 21 ln. 52 - col. 22 ln.18 discloses MSC 815 transmitting signaling 864 and bearer 865 to IBS-G1 804a, therefore, transmitting all of downlink data frame);*

receiving by the first base station corresponding downlink wireless signals from the base station which the channel processing of the cell's downlink data frames relates to *(Fig. 8C and col. 21 ln. 52 - col. 22 ln.18 discloses the anchoring - processing cell downlink data of mobile station - base station IBS-G1 804a receiving signaling 864 and bearer 865; Fig. 9-10 discloses data frame for transmitting data)*; and

transmitting by the first base station the downlink wireless signals for the cell *(Fig. 8C and col. 21 ln. 52 - col. 22 ln.18 discloses IBS-G2 804b relaying information to user device through over the air link 863)*

in the uplink direction,

receiving by the first base station uplink wireless signals of the cell *(Fig. 8C and col. 21 ln. 52 - col. 22 ln.18 discloses first base station IBS-G2 804b receiving communication from user device 802 through over the air link 863, therefore, receiving uplink wireless signal by first base station)*

distributing by the first base station a part or all of the uplink wireless signals to the base station to which their channel processing relates for processing *(Fig. 8C and col. 21 ln. 52 - col. 22 ln.18 discloses first base station IBS-G2 804b connect the mobile device 802 to network through anchoring base station IBS-G1 804a through link 867 and 866, therefore, distributing all part of uplink wireless signal)*;

receiving by the wireless network control device corresponding uplink data frames from the base station which the channel processing of the cell's uplink wireless signal relates to *(Fig. 8C and col. 21 ln. 52 - col. 22 ln.18 discloses first base station IBS-G2 804b connect the mobile device 802 to network through anchoring base station IBS-G1 804a to MSC 815 through bearer and signaling 864 and 865, therefore, receiving by network control device data from base station, Fig. 9-10 discloses data frame for transmitting data)*

wherein at least one of the base station which the channel processing of the downlink data frames relates to, and the base station which the channel processing of the uplink wireless signals relates to comprises the second base station *(Fig. 8C discloses anchoring base station IBS-G1 804a processing data for mobile station relates to comprising relaying data from IBS-G2 base station, therefore, channel processing comprising second base station).*

However, the reference is silent on further limitation about the first base station is a local base station from a centralized base station system, and the second base station is a remote end base station from another remote end base station system.

Wallentin discloses method and apparatus for handoff wherein the first base station is a local base station from a centralized base station system, and the second base station is a remote end base station from another remote end base station system *(Fig. 1A, col. 2 ln. 40 – col. 3 ln 13 discloses inter RNC handover wherein the first base station 26-1-3 is from centralized base station system RNC 22-1, and second base station 26-2-1 is from another remote base station system of target RNC 22-2).*

Therefore, it would be obvious for an ordinary skill in the art at the time of the invention to modify Menon teaching with Wallentin to provide sharing of channel processing for inter radio network controller handover to reduce congestion in network.

Re **claim 3**, the combined teaching of Menon and Wallentin discloses the invention of claim 1 and further discloses channel processing on uplink and downlink direction relates to both first and second base station *(Fig. 8C discloses anchoring base station IBS-G1 804a processing data for mobile station relates to comprising relaying data from IBS-G2 base station, therefore, using first and second base station for uplink and downlink communication).*

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Menon*** et al., Pat. No. US 9496,694 B1, in view of ***Wallentin***, Pat. No. US 6233222 B1, and ***Semper***, Pub. No. US 20030119507 A1.

Re **claim 2**, the combined teaching of Menon and Wallentin discloses the method of claim 1, however, silent on further limitation of claim 2.

Semper discloses method and apparatus for communication further comprising a step of transmitting channel configuration information in the cell from the first base station to the second base station sharing the channel processing task *(Fig. 3-5, Fig. 15, [0069]-[0070], [0086] discloses the communication between the two base station for setting up communication channel and the second base station is used as rescues base station, therefore, transmitting channel configuration information from first base station to second base station sharing channel processing task).*

Therefore, the combined teaching of Menon, Wallentin, and Semper would have rendered obvious the invention of claim 2 to improve the reliability of communication since configuration information is sharing between base stations.

Claim 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Menon*** et al., Pat. No. US 9496,694 B1, in view of ***Wallentin***, Pat. No. US 6233222 B1, and ***Takao*** et al., Pub. No. US 20020160777 A1.

Re **claim 6,** the combine the teaching of Menon and Wallentin disclose the method of claim 1, however, silent on further limitation of claim 6.

Takao discloses the method and apparatus for communicating wherein the bandwidth requires by the mobile station is divided between multiple base station *([0079]-[0080])* and when the base station which the channel processing of the downlink data frames relates to comprises more than one base stations, further comprising a step of separating the downlink data frames in the wireless network control device in order to be transmitted to corresponding base stations *(Fig. 3-4 and [0079]-[0080] discloses the data transmitting to base station is spitted and combined in uplink/downlink direction for communication between multiple base station and mobile station to use combined resources of multiple base station to fulfill bandwidth requirement of mobile station).*

Therefore, the combined teaching of Menon, Wallentin, and Takao would have rendered obvious the invention of claim 6 to provide the ability to provide

efficient handoff mechanism from one single base station as a counter part to multiple base station counter part.

Re **claim 8**, the combined teaching of Menon and Wallentin discloses the method of claim 1, however, silent on further limitation of claim 8.

Takao discloses the method and apparatus for communicating wherein the bandwidth requires by the mobile station is divided between multiple base station *([0079]-[0080])* and when the base station which the channel processing of the downlink data frames relates to, or the base station which the channel processing of the uplink wireless signals relates to, or the channel processing task shared by the base station changes, further comprising a step of applying signaling to perform synchronous switching between the base station and the wireless network control device *(Fig. 3-4 and [0079]-[0080] discloses the data transmitting to base station is spitted and combined in uplink/downlink direction for communication between multiple base station and mobile station to use combined resources of multiple base station to fulfill bandwidth requirement of mobile station; Fig. 18 and [0142]-[0153] described the shared task changed which makes the switching counter part of base stations and mobile device which obviously involve signaling between base station and network control device as shown in Fig. 11 and 20. The change would involves the change in network control device for splitting and combining data as discloses in [0078]-[0079] and fig. 4, therefore, synchronous between base station and network control device).*

Therefore, the combined teaching of Menon, Wallentin, and Takao would have rendered obvious the invention of claim 8 to provide the ability to provide efficient handoff mechanism from one single base station as a counter part to multiple base station counter part.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Menon*** et al., Pat. No. US 9496,694 B1, in view of, ***Wallentin***, Pat. No. US 6233222 B1, ***Takao*** et al., Pub. No. US 20020160777 A1, (and Kusaki et al., Pat. No. US 6108546 A).

Re **claim 7,** the combine the teaching of Menon and Wallentin discloses the method of claim 1, however, silent on further limitation of claim 7.

Takao discloses the method and apparatus for communicating wherein the bandwidth requires by the mobile station is divided between multiple base station *([0079]-[0080])* and when the base station which the channel processing of the downlink data to multiple base stations *(Fig. 3-4 and [0079]-[0080] discloses the data transmitting to base station is spitted and combined in uplink/downlink direction for communication between multiple base station and mobile station to use combined resources of multiple base station to fulfill bandwidth requirement of mobile station).*

Therefore, it would have rendered obvious the invention of claim Menon, Wallentin, and Takao to provide the ability to provide efficient handoff mechanism from one single base station as a counter part to multiple base station counter

part. The combined teaching would provide the ability to split downstream data to multiple base station *(Takao – Fig. 3-4 and [0079]-[0080])*, therefore, the data send to base stations are from same data frame and addressed the invention of claim 7.

To further demonstrate the ability to send same data frame to multiple mobile stations, Kusaki is introduced.

Kusaki discloses handoff between base stations wherein the same data frame is sent to multiple base stations *(abstract, col. 7 ln 26-49)*.

Therefore, the combined teaching of Menon, Takao, Wallentin and Kusaki would have rendered obvious the invention of claim 7 to reduced error rate during handoff.

Allowable Subject Matter

Claim 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's argument filed 02/07/2011 is based on newly added limitation of claims 1, therefore, being addressed as above by new ground of rejection.

Applicant is invited to further amend the claim to specifically define the novelty concept of the invention to expedite prosecution process.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUNG HONG whose telephone number is (571) 270-7928. The examiner can normally be reached on Monday-Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JINSONG HU, can be reached on (571) 272-3965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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